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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,080	02/11/2004	Daisuke Sakiyama	018656-682	3417
21839	7590	03/15/2006	EXAMINER	
BUCHANAN INGERSOLL PC (INCLUDING BURNS, DOANE, SWECKER & MATHIS) POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404			LEE, CHUN KUAN	
			ART UNIT	PAPER NUMBER
			2181	

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/775,080	SAKIYAMA ET AL.	
	Examiner Chun-Kuan (Mike) Lee	Art Unit 2181	

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 11 February 2004.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-16 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 11 February 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

*H. m. fleming*

*Supervisory*

FRITZ FLEMING  
PRIMARY EXAMINER  
GROUP 2100  
*Am 2181*

*3/13/2006*

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 02/11/2004.

- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 1 is objected to because of the following informalities:  
  
in claim 1, line 5, "the expansion memory" should be changed to -an expansion memory-. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-13, and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 1-2 and 8, it appears unclear regarding the relationship between the "identical data to be output multiple times" and the "second output session", whether if the second output session is derived from the identical data to be output multiple times or if it is a second output session of identical data to be output multiple times.

As per claims 3, similar ambiguity as stated above also applies between the "identical data to be output multiple times" and the "first output session".

Examiner will assumes that the first output session is defines as the first printing for first print job and the second output session is defines as the second printing for second print job .

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Utsunomiya (US Patent 6,999,186) in view of Terajima (US Patent 5,309,251).

4. As per claims 1, 8 and 14, Utsunomiya teaches a data outputting printer, comprising:

a receiving unit (input/output module 3000 of Fig. 3) that receives print jobs;  
a work (processing) memory (RAM 1037 of Fig. 3) that includes a storage area (Fig. 3, ref. 1032, 3007) used for storing image data for print jobs received by said receiving unit, as well as a processing memory area used for processing by converting image data to raster images (Fig. 3, ref. 3008, 3009);

an outputting printer unit (printer 1030 of Fig. 3) that output by printing image data after it has been processed in said processing area;

a mounting unit for mounting of the expansion memory (external memory 1043 of Fig. 2 ) used for data storage (HD 1043 of Fig. 3), wherein the hard drive is mounted as external memory for storing print data (col. 5, ll. 5-16);

a controller (printer controller 1031 and memory controller 1044 of Fig. 2) that, where the job is a job which identical data is to be output multiple times (printing a plurality of copies) (col. 5, ll. 17-32 and col. 6, ll. 20-44) or the job is a job which is a normal single-copy print, and implementing different processing steps base on the detection result of the job is the multiple-copy or the single-copy print (col. 8, ll. 28-40),

- (i) stores the image data for the second output session (second copy) onward and beyond into the work (processing) memory and the expansion memory (Fig. 2-3 and col. 6, ll. 20-44);
- (ii) reads out said image data from the work (processing) memory and the expansion memory, and executes printing for the second output session (second copy) onward via said printer unit (Fig. 2-3 and col. 6, ll. 20-44); and

Utsunomiya does not expressly teach the data outputting printer, comprising a detection unit that detects whether or not an expansion memory has been mounted to said mounting unit; and the controller selecting the storage destination memory based on the result of the detection by said detection unit for storing and reading out of the data.

Terajima teaches a facsimile apparatus comprising:  
an internal RAM processing memory (Fig. 1, ref. 115);  
an external memory (Fig. 1, ref. 109);  
a sensor (Fig. 1, ref. 119) utilized for detecting whether or not the external memory is coupled to the control unit (Fig. 1 and col. 3, l. 11 to col. 4, l. 14); and

a controller (Fig. 1, ref. 101) that, (i) selects the storage destination memory for the data based on the results of the detection by said detection unit, and stores the data therein, and (ii) reads out said data from the storage destination memory (Fig. 2-3 and col. 3, l. 11 to col. 4, l. 64).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Terajima's sensor and selection of the storage destination memory for storing and reading base on the result of the sensor into Utsunomiya's data outputting printer. The resulting combined references teach that the external memory (when present) will store data for second and subsequent output session, and will also have data read thereof for second and subsequent output session; and when the extemal memory is not present, the RAM processing memory does the same for second and subsequent output sessions.

The suggestion/motivation for doing so would have been to ensure the integrity of data transferring from the RAM on to the extemal memory by ensuring that the external memory is properly connected before data transferring.

Therefore, it would have been obvious to combine Terajima with Utsunomiya for the benefit of increasing the data transferring integrity.

5. As per claim 2, Utsunomiya and Terajima teach all the limitations of claim 1 as discussed above, where both further teach the data outputting printer comprising wherein if it is detected by said detection unit that an expansion memory is mounted, said controller stores the data used for said second output session onward in said

expansion memory, while if it is not detected by said detection unit that an expansion memory is mounted, said controller stores the data used for said second output session onward in said processing memory (Utsunomiya, Fig. 2-3 and Terajima, Fig. 3 and col. 3, l. 11 to col. 4, l. 14).

6. As per claim 3, Utsunomiya and Terajima teach all the limitations of claim 2 as discussed above, where both further teach the data outputting printer comprising wherein if it is detected by said detection unit that an expansion memory is mounted, said controller outputs the data processed in said processing memory as is for the first output session (Utsunomiya, Fig. 2-3 and Terajima, col. 3, l. 11 to col. 4, l. 14), wherein the communication result is first stored in the RAM (processing memory) then later transferred to the external memory and prior to printing, if the external memory is removed, the data is printed from the RAM.

7. As per claim 4, Utsunomiya and Terajima teach all the limitations of claim 1 as discussed above, where Terajima further teaches the data outputting printer comprising wherein said controller determines the storage format for the data used for the second output session onward in accordance with the results of the detection by said detection unit (Terajima, Fig. 6 and col. 5, ll. 29-50), wherein if data is stored on the external memory, the data would require proper formatting by the serial interface circuit for performing serial communication for data between the control unit and the external memory.

8. As per claim 5, Utsunomiya and Terajima teach all the limitations of claim 4 as discussed above, where Terajima further teaches the data outputting printer comprising wherein where the job is a print job sent from an external device, if the mounting of an expansion memory is detected by said detection unit, said controller stores the input data in said expansion memory in the format of the image data resulting from processing in said processing memory, while if the mounting of an expansion memory is not detected by the detection unit, said controller stores the input data in said processing memory in the data's format prior to its processing in said processing memory (Terajima, Fig. 6; col. 3, l. 11 to col. 4, l. 14 and col. 5, ll. 29-50), wherein if the external memory is detected, the data is stored in the external memory after being properly processed by being formatted for serial communication and if the external memory is not detected, data is stored in the RAM without implementing the serial formatting.

9. As per claim 6, Utsunomiya and Terajima teach all the limitations of claim 1 as discussed above, where Utsunomiya further teaches the data outputting printer comprising one or more compression/decompression (compression/expand) unit(s) that compress data and decompress compressed data (Utsunomiya, col. 2, ll. 8-67 and col. 7, ll. 22-32).

10. As per claim 7, Utsunomiya and Terajima teach all the limitations of claim 6 as discussed above, where Utsunomiya further teaches the data outputting printer comprising wherein said expansion memory stores data compressed by said compression/decompression unit(s) (Utsunomiya, col. 2, ll. 8-67 and col. 7, ll. 22-32), wherein data are compressed before being stored.

11. As per claim 9, Utsunomiya and Terajima teach all the limitations of claim 8 as discussed above, where both further teach the data outputting printer comprising wherein if it is detected by said detection unit that an expansion memory is mounted, said controller stores the image data used for printing of the second copy onward in said expansion memory, while if it is not detected by said detection unit that an expansion memory is mounted, said controller stores the image data used for printing of the second copy onward in said processing memory (Utsunomiya, Fig. 2-3 and Terajima, Fig. 3 and col. 3, l. 11 to col. 4, l. 14).

12. As per claim 10, Utsunomiya and Terajima teach all the limitations of claim 9 as discussed above, where both further teach the data outputting printer comprising wherein if it is detected by said detection unit that an expansion memory is mounted, said controller prints out the first copy using the image data processed in said processing memory (Utsunomiya, Fig. 2-3 and Terajima, col. 3, l. 11 to col. 4, l. 14).

13. As per claim 11, Utsunomiya and Terajima teach all the limitations of claim 8 as discussed above, where Terajima further teach the data outputting printer comprising wherein said controller determines the storage format for the image data used for the second copy onward in accordance with the results of the detection by said detection unit (Terajima, Fig. 6 and col. 5, ll. 29-50), wherein if data is stored on the external memory, the data would require proper formatting by the serial interface circuit for performing serial communication for data between the control unit and the external memory.

14. Claims 12-13 repeat the limitations of claims 6-7 and are therefore rejected accordingly.

15. As per claim 15, Utsunomiya and Terajima teach all the limitations of claim 14 as discussed above, where Utsunomiya further teach the data outputting printer comprising one or more compression/decompression unit(s) that compress image data input from said processing area, decompress compressed image data and output decompressed image data to said processing area (Utsunomiya, col. 2, ll. 8-67 and col. 7, ll. 22-32), since data are compressed before being stored, said data must also be decompressed before being printed.

16. As per claim 16, Utsunomiya and Terajima teach all the limitations of claim 15 as discussed above, where Utsunomiya further teach the data outputting printer comprising

wherein said expansion memory stores image data compressed by said compression/decompression unit(s) (Utsunomiya, col. 2, ll. 8-67 and col. 7, ll. 22-32), wherein data are compressed before being stored.

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun-Kuan (Mike) Lee whose telephone number is (571) 272-0671. The examiner can normally be reached on 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fritz M. Fleming can be reached on (571) 272-4145. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.K.L  
03/09/2006

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